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AUTHOR Schrodt, Paul; Tate, Tara; Carter, C. C.
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ABSTRACT

This pilot study sought to extend K.L. Hutchinson and J.W. Neuliep's (1993) research regarding the relationship between parental modeling of communication apprehension (CA) and the development of children's CA. Furthermore, the study examined this relationship within the context of Latino families. Subjects were 82 fifth graders attending a predominantly Latino elementary school and their parents from a metropolitan area in the southwestern United States. The initial results, based on Hutchinson and Neuliep's (1993) research, indicated that there is no relationship between parental attitudes toward communication, parental modeling, and the subsequent development of CA in Latino elementary school children. A second analysis, using scales with improved reliability, indicated a negative relationship between mothers' spousal CA and parental modeling in children. (Contains 57 references and 3 tables of data.) (Author/RS)

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PARENTAL MODELING AND THE DEVELOPMENT OF COMMUNICATION APPREHENSION IN ELEMENTARY SCHOOL CHILDREN: A LATINO PERSPECTIVE

Paul Schrodt, Tara Tate, and C. C. Carter

University of North Texas

Abstract

This pilot study sought to extend Hutchinson and Neuliep's (1993) research regarding the relationship between parental modeling of communication apprehension (CA) and the development of children's CA. Furthermore, the researchers examined this relationship within the context of Latino families. The initial results, based on Hutchinson and Neuliep's (1993) research, indicated that there is no relationship between parental attitudes toward communication, parental modeling, and the subsequent development of CA in Latino elementary school children. A second analysis, using scales with improved reliability, indicated a negative relationship between mothers' spousal CA and parental modeling in children.

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About the authors: Paul Schrodt, Tara Tate, and C. C. Carter are graduate students in the Department of Communication at the University of North Texas. For additional information about this paper, you may contact the first author at the Department of Communication Studies; PO Box 305268; UNT; Denton, TX 76203.

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Parental Modeling and the Development of Communication Apprehension in Elementary School Children: A Latino Perspective

For years, communication scholars have investigated the negative consequences associated with communication apprehension. In fact, "no communication variable has been examined more during the past two decades than has communication apprehension" (Lustig & Andersen, 1991, p. 299). Communication apprehension (CA) is defined by McCroskey (1977) as "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (p. 78). Extant research has demonstrated that CA can negatively influence one's academic, social, and professional life (McCroskey, Richmond, & Stewart, 1986), and individuals with high levels of CA experience high levels of apprehension in almost any oral communication context (McCroskey, 1977).

Although the negative consequences associated with CA are well documented, much less attention has been given to the influence of environmental factors on the development of CA. As Daly and Friedrich (1981) have suggested, a child's home and school environments are the two most significant environmental factors in the development of a child's communication skills. In fact, several studies have documented the effects that the family communication environment, particularly parental communication patterns, has on the way in which children learn to communicate (Booth-Butterfield & Sidelinger, 1997; Ferguson & Dickson, 1995; Fitzpatrick & Ritchie, 1994; Graham, 1997; Guerrero & Afifi, 1995; Keller, 1993). Although parental communication influences both the family communication environment and the way in which a child learns how to communicate, little research exists concerning the influence of parental modeling on the development of a child's apprehension level.

In addition to the limited research concerning the relationship between CA and the influence of parental modeling, few scholars have examined the environmental impact of one's culture on the development of CA. This study explored this void in existing research. It investigated the influence of parental modeling in the development of communication apprehension in elementary school children, and explored this relationship as it develops within the Latino culture.

The Development of Communication Apprehension

Previous research has identified two types of CA: state apprehension and trait apprehension (McCroskey, 1977). State apprehension involves a specific communication event, such as giving a particular speech to a specific audience or interviewing with an important person (McCroskey, 1977). An obvious example of state CA would be the phenomenon commonly known as "stage fright" (McCroskey, 1977). In contrast to state CA, trait CA moves from a single phenomenon into an actual fear or anxiety that an individual experiences across communication events. As McCroskey (1977) indicated, people with high levels of trait CA experience high levels of apprehension during almost any oral communication event, and trait CA "is not characteristic of normal, well-adjusted individuals" (p. 79). Based upon this research, the present study sought to explore trait CA as it developed in Latino elementary school children.

Although scholars appear to have reached a consensus regarding the nature and prevalence of CA (McCroskey, 1977, 1982; McCroskey et al., 1986), how CA develops remains a debatable issue. Four theoretical approaches dominate the debate: (a) genetic predispositions, (b) reinforcement, (c) skill acquisition, and (d) modeling (Daly & Friedrich, 1981; Hutchinson & Neuliep, 1993; McCroskey, 1977). It is important to note that although the effects of each model have been researched individually, an overlap exists among these explanations when exploring the development of CA (Daly & Friedrich, 1981). Note also that three of the four explanations for CA development -- the exception being genetic predispositions -- include parental and school environments as contributing factors of CA.

Research investigating heredity (i.e., genetic predispositions) has indicated that an individual's genetic make-up contributes to the development of CA (Beatty, Plax, & Kearney, 1985; Daly & Friedrich, 1981; McCroskey, 1977). McCroskey (1977, 1982) argued that inherited predispositions are influenced by environmental factors. Current research conducted by Beatty, McCroskey, and Heisel (1998), however, suggested that trait CA is mostly a product of genetic inheritance. In fact, Beatty et al. (1998) argued that the development of CA may be viewed through a communibiological paradigm, indicating that trait CA does not depend primarily on the social learning environment. According to this theory, "the environment has only a negligible effect on trait development, and differences in interpersonal behavior are principally a consequence of individual differences in neurobiological functioning" (Beatty et al., 1998, p. 198). Although the communibiological paradigm is the latest theory regarding CA development from a genetic predispositions approach, Beatty et al. (1998) have argued that this paradigm is hardly novel. In fact, interpersonal scholars have recognized the potential impact of biology on our understanding of interaction and communication behavior (Cappella, 1991, 1993; Horvath, 1995). Therefore, some research does exist supporting the theory that genetic predispositions have a legitimate impact on the development of trait CA.

Considered to be the most commonly encountered explanation for the development of CA (Beatty et al., 1985; Daly & Friedrich, 1981; Hutchinson & Neuliep, 1993; McCroskey, 1977, 1982), the reinforcement approach holds that individuals will seek to engage in behaviors that provide favorable consequences and avoid those behaviors that result in punishment (Daly & Friedrich, 1981). From this perspective, a child develops high or low CA based upon reinforced behavior; those who find communication activities to be unrewarding will develop high CA (Hutchinson & Neuliep, 1993). Additionally, research has suggested that the development of CA begins during early childhood (Garrison & Garrison, 1979), and the reinforcement of CA becomes internalized early in a child's life, thus making trait CA difficult to modify later in life (Daly & Friedrich, 1981). Consequently, trait CA becomes more difficult to treat as an individual ages (Daly & Friedrich, 1981).

A third explanation for the development of CA is based upon skill acquisition. Extant research has indicated that certain people simply lack the language skills needed for communicating in public or private situations (McCroskey, Fayer, & Richmond, 1985). Further, Daly and Friedrich (1981) have suggested that a child develops anxiety because of a failure to acquire the necessary skills for social interaction. Individuals become apprehensive because they lack certain communication skills (e.g., verbal

dexterity, articulation, reciprocity, etc.) that are considered to be essential for effective interaction (Hutchinson & Neuliep, 1993). The skill acquisition approach addresses the acquisition rate of a child, suggesting that the highly apprehensive child fails to develop his or her communication skills as quickly as the nonapprehensive child (Daly & Friedrich, 1981). Assuming that this approach addresses the nature of CA development, one might conclude that proper instruction and education could treat the anxiety and ease the influence of trait CA. The skill acquisition approach implies that children are either equipped or unequipped with the necessary knowledge needed for communicating without apprehension, thus giving parents and teachers a responsibility to provide the knowledge necessary to develop children who are comfortable communicating.

The fourth and final approach to the development of CA is based on modeling. This theory has suggested that children develop CA by observing and imitating others (Daly & Friedrich, 1981; Hutchinson & Neuliep, 1993). As previously noted by Hutchinson and Neuliep (1993), "the two most significant social environments are the home and school" (p. 17). The influence of behavioral modeling on a child's development is well documented (Kliewer, Fearnow, & Miller, 1996; Bandura, 1977), and scholars have indicated that a majority of our behavior patterns are learned rather than inherited (Bandura, Ross, & Ross, 1963; Roloff & Greenberg, 1980). For example, Denny and Connors (1974) discovered that children tend to imitate their parents' questioning techniques, while Whitehurst (1976) reported that children have a natural tendency to imitate their parents' conversational style. One modeling theory in particular, social learning theory, contended that children mimic social behaviors that they see on a regular basis (Kliewer et al., 1996). Social learning theory also indicated that children's coping patterns may be highly influenced by the mechanisms that parents utilize in stressful situations (Blount, Bachanas, Powers, Cotter, Franklin, Chaplin, Mayfield, Henderson, & Blount, 1992; Kliewer et al., 1996). Based upon this theory, parental modeling is believed to have both direct and indirect effects on a child's coping behaviors (Kliewer et al., 1996). Finally, children who perceive themselves as having a sense of stability within a supportive environment feel less threatened by anxiety-prone events (Sandler, Miller, Short, & Wolchik, 1989), indicating that a supportive environment for the development of a child's communication skills begins in the home.

Communication Apprehension and the Family Environment

Because family is the first communication environment in which children learn who they are and how to communicate interpersonally (Booth-Butterfield & Sidelinger, 1997), the family environment impacts the way in which children learn to communicate in various contexts (Booth-Butterfield & Sidelinger, 1997; Ferguson & Dickson, 1995; Fitzpatrick & Ritchie, 1994; Graham, 1997; Guerrero & Afifi, 1995; Keller, 1993). Wood (1995) has argued that every family provides basic understandings about who the family is and how it functions, and children learn these understandings by participating in family life. As Trost (1990) noted, the identity of the individual is, if not dependent, at least strongly connected to the self-perception of family membership. The amount of interaction present between family members varies from family to family, with some families possessing higher levels of communication than others (Friedlander, Jacobs, Davis, & Wetsone, 1972). These conclusions have suggested that the family

communication environment and the communication patterns of each parent have a profound effect on the development of a child's communication skills and a child's level of apprehension.

Due to the importance of the family communication environment, and because much of the research associated with parental modeling does not focus specifically on the development of CA, it is important to examine the influence of parental modeling on the development of CA. As noted by Daly and Friedrich (1981), the existence of a positive communication environment should discourage apprehension in a child, whereas homes where CA might develop would be characterized by little interaction. Previous research by Phillips (1968) supported this conclusion arguing that parental attitudes toward communication are critical in providing a possible explanation for the development of apprehension in children.

In addition to the trait CA exhibited by each parent, children also may imitate the infrequent communication patterns exhibited between parents (Hutchinson & Neuliep, 1993). This situation, referred to as spousal communication apprehension, occurs when an individual's anxiety about communicating with one's spouse outweighs the projected reward from interaction in a variety of contexts (Powers & Hutchinson, 1979). To date, however, scholars have yet to reach a consensus concerning the nature of the relationship between parental communication and the development of children's CA. For example, Beatty, Plax, and Kearney (1985) found no relationship between a child's CA and the modeling of parental communication behaviors, whereas Hutchinson and Neuliep (1993) concluded that spousal CA in the father and parental modeling are significantly related to CA in children. Similarly, Hsu (1998) supported the role of the family in the development of CA, concluding that the most significant variable contributing to CA is family expressiveness. Although this research has suggested a link between the family communication environment and the development of CA, little is known concerning the relationship between CA and the factors that contribute to the family environment. More specifically, few scholars have investigated the role that culture plays in the development of CA. If parents contribute to the development of CA, whether through heredity, the environment, or through a combination of the both, then one might conclude that the culture of the parents would influence the child's communication skills as well.

Communication Apprehension and the Latino Culture

With a few notable exceptions, previous research emphasizing CA has focused on the white American population (Martini, Behnke, & King, 1992). As Martini et al. (1992) have noted, other cultures are becoming increasingly important to the American culture, and "extant research has not done sufficient justice to understanding individuals from other cultures and their interaction with our society" (p.280). Because human beings are educated by their culture, how they communicate, where they communicate, and the expressive modes used to communicate must be inherently connected to their culture (Asante, 1980). Thus, exploring the development of CA within a specific culture contributes to an overall understanding of the communication behaviors of that culture.

Research has suggested that examining Latino communication behavior is important from both a practical and a theoretical perspective (Martin, Hammer, & Bradford, 1994). From a practical viewpoint, the Latino population is the fastest growing

population in the United States. Between 1950 and 1980, the Latino population increased by 265%, compared with less than a 50% increase in the total population (Davis, Haub, & Willette, 1983). From 1980 to 1988, the Latino population increased by 34.4%, compared to 8% of other ethnic groups (Bureau of the Census, 1988). Beyond recognizing the growth of the Latino-American population, it is also important to note that Latino students have the highest school dropout rates of any distinguished ethnic group (Lewis, 1998; National Center for Education Statistics, 1990). When the population growth and dropout rates of Latino youth are considered in conjunction with one another, the necessity of addressing issues such as CA -- issues that can impact a student's educational experience -- are obvious.

In addition to the pragmatic value of examining Latino communication behavior, and due to the fact that human beings can not be separated from their culture (Saral, 1977), researchers should explore the theoretical implications that the Latino culture may have on the development of CA. One basis for comprehending cultural differences in communication behavior is the value dimension of individualism-collectivism (Brislin, Cushner, Cherrie & Yong, 1986; Hofstede 1984, 1991; Martin et al., 1994; Triandis, Marin, Lisansky, & Betancourt, 1984). As Martin et al. (1994) noted, this theoretical dimension explores the relationship between the individual and the group in society. Collectivistic societies emphasize personal needs and objectives as determined by the in-group, whereas individualistic cultures determine their social behavior in terms of personal objectives, values, and attitudes (Hofstede, 1984, 1991; Kluckhohn & Strodbeck, 1961; Martin et al., 1994). Research has also indicated that the influence of cultural socialization patterns on communication behaviors varies depending on whether a cultural group has more individualistic or collectivistic tendencies (Martin et al., 1994). Further, research also suggests that the Latino culture is collectivistic in nature (Condon, 1985; Gangotena, 1994; Marin & Marin, 1991; Marin & Triandis, 1985; Triandis et al., 1984). These conclusions suggest that the value dimension of individualism-collectivism may influence the development of a child's communication behaviors. For example, Caucasian children who are raised in an individualistic culture would view communication in terms of their own personal objectives and values. On the other hand, Latino children who are raised in a collectivistic culture might view communication in terms of the goals determined by the group, as opposed to their own personal goals and objectives. The construct of communication apprehension is based upon an individual's fear or anxiety, and this theory gives little regard to the impact that cultural differences may have on communication behavior. Therefore, the development of children's CA in the Latino culture may be influenced by its collectivistic characteristics.

As a result of its collectivistic nature, the Latino culture emphasizes the importance of family and the family or group needs take precedence over the needs of the individual (Pajewski & Enriquez, 1998). Typically, Latino children are raised to be cooperative, whereas the European-Anglo culture usually encourages competition and individuality (Pajewski & Enriquez, 1998). When applied to the development of CA, Pajewski and Enriquez (1998) reported that some Latino students are terrified by the thought of speaking out in class. Additionally, research exploring CA and self-perceived communication competence of at-risk students has identified Latino students as having substantially higher apprehension levels than those students who are Caucasian or African-American (Chesebro, McCroskey, Atwater, Bahrenfuss, Cawelti, Gaudino, &

Hodges, 1992). Chesebro et al. (1992) argued that "the suspected causative factors for differential perceptions as a function of ethnicity are differences in language development and use" (p. 354). This contention is extended to the Latino culture by earlier research of Puerto Rican students (McCroskey, Fayer, & Richmond, 1985).

In addition to the differences in language development and use, Neuliep and McCroskey (1997) have reported that the perceptions about people from other cultures influences the development of a high degree of anxiety and uncertainty during initial cross-cultural interactions. Due to the fact that intercultural communication in the United States is almost unavoidable (Neuliep & McCroskey, 1997), and given the fact that some Latino youth have higher dropout rates (National Center for Education Statistics, 1990) and apprehension levels (Chesebro et al., 1992), communication research should explore the dimensions of CA development as they exist in the Latino culture.

To date, only one study has been conducted that directly examines CA and the Latino culture. McCroskey, Fayer, and Richmond (1985) compared the CA levels of Puerto Rican college students with the CA scores of students from the United States. The researchers discovered that the Puerto Rican students were much less apprehensive about communication in their native language than the U.S. students, but they were more apprehensive about communication when speaking in English. Thus, McCroskey et al. (1985) argued that higher apprehension levels in Latino college students are the result of differences in language use and development, a conclusion that has yet to be challenged.

Rationale

Although some research has explored the development of CA from a modeling perspective (Beatty et al., 1985; Hutchinson & Neuliep, 1993), this research provided inconclusive results regarding the influence of parental modeling on the development of CA in elementary school children. In addition to these discrepancies, little is known regarding the influence of cultural characteristics on the development of CA in Latino youth. Although the findings of McCroskey et al. (1985) are significant from a cultural perspective, this study only compared the CA levels of Latino college students from a predominantly Latino providence. The researchers were not attempting to address the origins or the development of CA in the Latino youth of the United States.

Given the increase of Latino youth in the education system of the United States, this study explored the origins and development of CA within Latino elementary school children. This pilot study sought to extend previous research by Hutchinson and Neuliep (1993) -- who discovered that a significant relationship exists between parental modeling and children's CA -- by examining the development of CA within Latino elementary school children. Though not an exact replication of the Hutchinson and Neuliep (1993) study, the present research explored the theoretical principles and questions set forth in the Hutchinson and Neuliep (1993) study, examining these questions from a Latino perspective. To that end, the following research questions were advanced:

RQ1: What is the relationship between parental attitudes toward communication and the modeling of CA among Latino elementary school children?

RQ2: What is the relationship between parental modeling and Latino children's CA?

Method

Sample

A purposive sample was used for this pilot study. The initial sample included 82 fifth graders and their parents from a metropolitan area in the southwestern United States. The students attended a predominantly Latino elementary school. The average age of the students was 10.70 years, with a range of 10-13 years; 40 of the students were male and 42 were female.

Upon completion of a children's survey packet, each student was instructed to take home a parent survey packet. Of the 82 parental packets sent home, 58 were returned. Of the 58 returned, only 32 met the criteria for the study. Criteria for inclusion in the study included the following: (a) the packet contained surveys from both a mother and a father, (b) both parents had to be living within the same household, and (c) at least one parent was Latino. Thus, the final sample included 32 Latino elementary school children and their parents, producing a response rate of 39%. The average age of the students in the final sample was 10.84 years, with a range of 10-12 years; 16 of the students were male and 16 were female.

Procedure

Prior to conducting the study, parental surveys and a cover letter were translated into Spanish; each survey instrument provided Likert-type items in English and in Spanish. The cover letter described the nature of the study and requested the parents' permission. The students' surveys were then administered with the assistance of the teachers in the fifth grade. Each survey item was read out loud to the students, and the students responded to each item by circling their answers. For identification purposes, both the student surveys and the parental packets that accompanied them were numbered identically. Upon completion of the student surveys, each student was instructed to take a packet home to their parents. Parents were instructed to complete the instruments and to have their children return them in the packets that they received them in.

Measures

Student Communication Apprehension. Elementary school children's communication apprehension was operationalized using Garrison and Garrison's (1979) Measure of Elementary Communication Apprehension (MECA). Although multiple versions exist, this investigation utilized the 12 items reported by Garrison and Garrison (1979) as defining the basic structure of the MECA. The MECA is composed of 12 Likert-type items designed to measure children's self-reported feelings concerning communication. Responses are recorded using a progression of five smiling and frowning faces. Although the MECA has substantial documentation regarding its reliability and validity, Hutchinson and Neuliep (1993) identified 6 items from the 12-item MECA that produced the most reliable instrument based on their sample. Thus, this study also compared the reliability of the 12-item version (standardized Cronbach's alpha

of .63) to the 6-item version (standardized Cronbach's alpha of .67), and the 6-item version was used in the analysis of the research questions.

Parental Modeling. Parental modeling was operationalized using Hutchinson and Neuliep's (1993) Parental Modeling Scale (PMS). This scale is composed of 9 Likert-type items designed to measure children's self-reported behaviors about modeling their parent's communication behaviors. In order to maintain consistency with the MECA, the PMS was adapted to include the same progression of smiling and frowning faces recommended by Garrison and Garrison (1979). The initial analysis included the 9-item version of the PMS, which demonstrated reasonable reliability with a standardized Cronbach's alpha of .75 in this application. In an effort to maximize the reliability of this fairly new instrument, however, the researchers used a 6-item version of the PMS in a second analysis of the research questions. This version was created by successively eliminating items in computing sequential alpha's until the reliability increased to a maximum value. The 6-item version demonstrated stronger reliability with a standardized Cronbach's alpha of .82 in this application.

Parental Communication Apprehension. Parental CA was operationalized using McCroskey's (1978) 10-item version of the Personal Report of Communication Apprehension (PRCA-10). Although this instrument has substantial documentation regarding its reliability and validity, the PRCA-10 demonstrated low reliability with a standardized Cronbach's alpha of .63 in this application.

Spousal Communication Apprehension. Spousal communication apprehension was measured using the 15-item Personal Report of Spousal Communication Apprehension (PRSCA) developed by Powers and Hutchinson (1979). This scale contains 15 Likert-type items designed to measure an individual's self-reported feelings concerning communication with their spouse. Reliability for the PRSCA as determined by the standardized Cronbach's alpha was .79.

Data Analysis

To answer the research questions, Pearson product-moment correlations were computed using both the original and the modified instruments previously mentioned. The first analysis sought to compare these correlations with the results found by Hutchinson and Neuliep (1993). The second analysis, which replaced the original PMS with the 6-item version, sought to improve the results found in the initial analysis.

Results

For the purpose of comparing the results of this study to Hutchinson and Neuliep's (1993) findings, the means and standard deviations for the MECA in both studies appear in Table 1.

Research Question #1 assessed the relationship between parental attitudes toward communication and the subsequent modeling of CA among Latino elementary school children. In the first analysis, no significant relationships were found between parental attitudes toward communication, parental modeling and student reports of communication apprehension (see Table 2). The second analysis, however, revealed a negative and significant relationship ($r = -.36$, $p < .05$) between mothers' spousal CA and

parental modeling (see Table 3). This small, but definite relationship accounted for 13% of the variance.

Research Question #2 assessed the relationship between parental modeling and the subsequent development of CA among Latino elementary school children. In both analyses, no significant relationships were found between parental modeling and CA among Latino elementary school children (see Table 2 & Table 3).

Although not directly related to the research questions presented in this study, both analyses produced a positive and significant relationship between mothers' CA and mothers' spousal CA ($r = .48$, $p < .01$).

Discussion

The principle goal of this research explored the relationships among parental communication apprehension (CA), parental modeling, and the development of CA in elementary school children within the Latino culture. The first research question sought to examine the relationship between parental attitudes toward communication and parental modeling. The initial results of this study, which were compared to Hutchinson and Neuliep's (1993) findings, indicated that there is no relationship between parental attitudes toward communication and parental modeling in Latino elementary school children. There is evidence to suggest, however, that the correlation coefficients in the first analysis might have been significant, if not for the limited sample size used in this study (see Table 2).

The second analysis, which used a more reliable version of the Parental Modeling Scale (PMS), indicated that a mother's spousal CA has a small, but definite negative relationship with parental modeling in children. Although mothers' spousal CA accounted for only 13% of the shared variance with parental modeling, these results are meaningful given the inverse relationship between the two. In fact, the results seem to suggest that the more apprehension a mother demonstrates while communicating with her spouse, the less likely her children will be to model those apprehensive behaviors. Thus, this inverse relationship provides evidence against parental modeling as an explanation for the development of CA in Latino children.

The second research question sought to explore the relationship between parental modeling and the development of CA. Again, the results of this study indicated that there is no relationship between parental modeling and CA in Latino children. Although the correlation coefficients may have produced significant results given a stronger sample size, the absence of significant relationships between the variables supports the earlier contentions of Beatty et al. (1985), who argued that there is no relationship between parental modeling and CA development. Furthermore, this pilot study appears to contradict the findings of Hutchinson and Neuliep (1993), who reported a significant relationship between spousal CA (i.e., father's), parental modeling, and children's CA. In addition, the findings from this pilot study identify the Latino sample as having similar CA levels when compared to the non-Latino sample reported by Hutchinson and Neuliep (1993) (see Table 1). Thus, the conclusions from this study, although based on a fifth grade sample, appear to conflict with earlier research conducted by Chesebro et al. (1992), who identified Latino students as having a substantially greater proportion of highly apprehensive students than Caucasian or African-American students.

The apparent discrepancies between Beatty et al. (1985), Hutchinson and Neuliep (1993), Chesebro et al. (1992), and this pilot study suggest two theoretical conclusions. First, the results of this study fail to support parental modeling as an explanation for trait CA development in children. Not only did the initial analysis indicate that there was no significant relationship between parental communication and children's CA, the second analysis suggested that a mother's spousal CA level had a negative impact on a child's tendency to model the mother's communication behavior. Second, existing measurements of trait CA may not account for communication behaviors that occur because of cultural differences. Consequently, future research should consider each theoretical conclusion when exploring the development of trait CA within specific cultures.

With respect to the four original approaches to the development of trait CA, this study calls into question the influence of parental modeling in trait CA development. This research lends credibility to the theory that the environment has only a negligible effect on the development of trait CA, thus supporting the contentions of Beatty, McCroskey, & Heisel (1998). Perhaps scholars should continue to explore the communibiological paradigm as a potential explanation for the development of trait CA. If heredity, however, is an indicator of a child's apprehension level, then one might expect a significant relationship between the trait CA levels of the parents and their children.

Implicit in this investigation is an assumption that communication apprehension is universal among all cultures. The collectivistic nature of the Latino culture, however, may influence a Latino child's perception of communication activities. In other words, Latino children may interpret communication activities from a group perspective as opposed to an individual perspective, thus negating the applicability of an individualistic construct such as CA to the collectivistic Latino culture. It is possible that Latino students do not place the same value on public communication as Caucasian or African-American students. Future research is needed to explore the motivations behind Latino communication, and to determine the extent to which trait CA is universal among all cultures.

Although this pilot study contributes to an understanding of trait CA development within the Latino culture, it does have serious limitations. First, a sample size of 32 parents and their children is too small to provide any generalizability. The findings from this pilot study appeared to be the result of having such a limited sample size. Second, measuring the home environments of the 32 children included in this study is problematic at best. It is possible that the home environments of the 32 children are significantly better or significantly worse than a majority of Latino households. Finally, without interviewing each of the 32 households, there is no way to determine whether or not the Latino children were reared in an individualistic or collectivistic culture. Thus, the results should be interpreted with extreme caution given the limited scope of this study.

Based upon the efforts of this study, future research should explore the construct of trait CA as it is perceived in different cultural contexts. Future research also should continue and expand this investigation of the role and development of trait CA as it applies to the Latino youth of the United States. If trait CA is a contributing variable to the drop-out rates of Latino youth in the United States, then subsequent studies may provide assistance in the retention of Latino students at both the elementary and

secondary educational levels. Finally, the collectivistic nature of the Latino culture should be taken into consideration, as researchers and teachers seem to place an emphasis on individual activity and achievement. Although considered to be a pilot study, this research contributed to the theoretical debate regarding trait CA development, and it recognized the importance of the cultural context when exploring communication phenomena. With continued development, future trait CA research may finally establish the origins of trait CA, the process through which trait CA develops, and the influence of an individual's culture on their perceptions of both trait CA and the communication process as a whole.

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Table 1

Means and Standard Deviations for MECA

Sample	M	SD	N
Latino Sample	15.5	5.0	28
Non-Latino Sample[a]	15.4	4.0	21

[a]Non-Latino sample reported by Hutchinson and Neuliep (1993).

Table 2

Correlations Among all Variables in First Analysis

Variables	MECA	PMODEL	MPRCA	MPRSCA	DPRCA	DPRSCA
MECA	--	.30	-.04	-.14	.23	-.03
PMODEL		--	.18	-.22	.14	-.16
MPRCA			--	.48*	.33	.04
MPRSCA				--	-.10	.31
DPRCA					--	.05
DPRSCA						--

Note. The variables were represented using the following key: MECA = Children's CA scores, PMODEL = Parental modeling scores, MPRCA = Mother's CA scores, MPRSCA = Mother's spousal CA scores, DPRCA = Father's CA scores, and DPRSCA = Father's spousal CA scores.

* $p < .05$ (2-tailed).

Table 3

Correlations Among all Variables in Second Analysis

Variables	MECA	PMODEL	MPRCA	MPRSCA	DPRCA	DPRSCA
MECA	--	.30	-.04	-.14	.23	-.03
PMODEL		--	.18	-.36*	.04	-.19
MPRCA			--	.48**	.33	.04
MPRSCA				--	-.10	.31
DPRCA					--	.05
DPRSCA						--

Note. The variables were represented using the following key: MECA = Children's CA scores, PMODEL = Parental modeling scores, MPRCA = Mother's CA scores, MPRSCA = Mother's spousal CA scores, DPRCA = Father's CA scores, and DPRSCA = Father's spousal CA scores.

* $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).